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(54) **Cables with water-blocking and flame-retarding foam**

(57) The cable (50) of the present invention incorporates a core (54), an outer jacket (52) surrounding the core, and a water-absorbent foam (10) disposed between the core and the outer jacket as well as inside the core. In a preferred embodiment the water-absorbent foam is a super-absorbent foam comprising a poly-

urethane or similar type foam loaded with super-absorbent polymers (SAPs) which exhibit both water-blocking and flame-retarding characteristics. Additionally, the foam preferably is provided with a moisture content of greater than approximately 0 percent, by weight, thereby improving the flame-retarding characteristics of the foam.

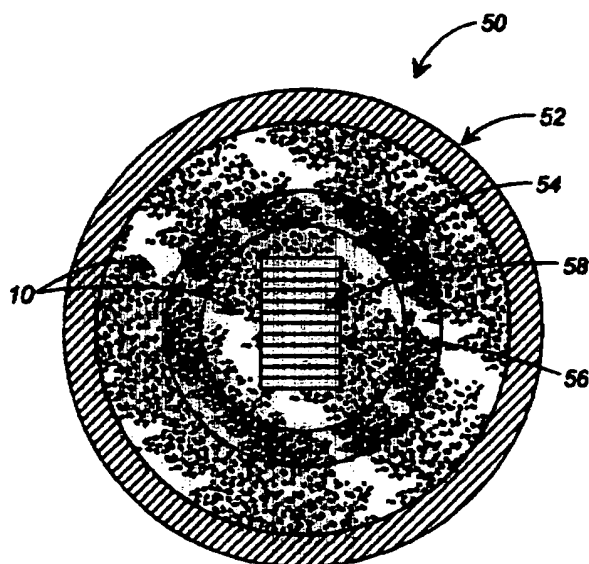


Fig. 2



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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	EP 0 790 265 A (SANYO CHEMICAL IND LTD) 20 August 1997 (1997-08-20) * page 7, line 37 - line 43; figure 1 * * page 5, line 45 - line 54 *	9-13	G02B6/44 H01B7/28
Y	---	1-8, 14-16	
X	DATABASE WPI Section Ch, Week 198834 Derwent Publications Ltd., London, GB; Class A85, AN 1988-238269 XP002190771 & JP 63 170810 A (NIPPON TELEGRAPH & TELEPHONE CORP), 14 July 1988 (1988-07-14) * abstract *	9,11-13	
D,Y	US 5 390 273 A (SMITH JOHN C ET AL) 14 February 1995 (1995-02-14) * claim 1; figure 2 *	1-8,14, 15	
Y	PATENT ABSTRACTS OF JAPAN vol. 013, no. 082 (P-833), 23 February 1989 (1989-02-23) & JP 63 265209 A (FURUKAWA ELECTRIC CO LTD:THE), 1 November 1988 (1988-11-01) * abstract *	7,8,16	TECHNICAL FIELDS SEARCHED (Int.Cl.7) G02B H01B
A	DATABASE WPI Section Ch, Week 199019 Derwent Publications Ltd., London, GB; Class A25, AN 1990-143150 XP002190772 & JP 02 088619 A (FUTABA GUM KOGYO), 28 March 1990 (1990-03-28) * abstract *	1,9	
		-/--	
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 19 February 2002	Examiner Lord, R
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document		T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons & : member of the same patent family, corresponding document	

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Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 30 7639

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	<p>DATABASE WPI Section Ch, Week 199016 Derwent Publications Ltd., London, GB; Class A14, AN 1990-118738 XP002190773 & JP 02 067336 A (SUMITOMO BAKELITE CO), 7 March 1990 (1990-03-07) * abstract *</p> <p>-----</p>	1,9	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 19 February 2002	Examiner Lord, R
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p>		<p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>	

EPO FORM 1503 03 82 (P01C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 30 7639

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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19-02-2002

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0790265	A	20-08-1997	JP 9221656 A	26-08-1997
			EP 0790265 A1	20-08-1997
			US 5838863 A	17-11-1998
JP 63170810	A	14-07-1988	NONE	
US 5390273	A	14-02-1995	US 5229851 A	20-07-1993
			CA 2127909 A1	17-01-1995
			CA 2091750 A1	03-10-1993
			EP 0564130 A1	06-10-1993
JP 63265209	A	01-11-1988	NONE	
JP 2088619	A	28-03-1990	NONE	
JP 2067336	A	07-03-1990	NONE	

EPO FORM P459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82